

APPENDIX A

Client Side Programs

5 The "Client Module" are executed by the caller and support any communications to and from the caller.

Program "vegacomm.cpp", "vegacomm2.cpp", and "vegacomm.h" are compiled together to make up the main caller side application.

Together, all of code segments listed under the C++/Header Files table make up
10 "vscp.dll". Executing program "vscp.dsw" commences compilation of "vscp.dll".

Java files are used to build the Java applet 24 of FIG. 3B. It is the main module of the client application. All the direct user interaction and user interface are implemented in these files.

Resource files contain the user interface and multimedia object definitions.

15 The COM files are used as an interface between Java Applet and the *.dll files.

The Netscape Plugin files allow control the java applet to control the sound card. Netscape plugin files for Netscape serves the same role that the COM module does for MS Internet Explorer.

File "strtp.dll" supports RTP communication and voice encoding/decoding
20 functions between the caller and any destination device (for example, PC to phone communications) or any remote caller (for example, PC to PC communications).

| Java files | | |
|----------------------|---|---------|
| File | Description | Comment |
| AnswerDialog.java | Yes/No message dialog class | |
| BrowserType.java | class for detecting surrounding browser type | |
| ContactInfo.java | Contains personal information and location information of Client. | |
| DialDialog.java | Dialing Dialog class | |
| DialDialogEvent.java | Dialing Dialog event class | |
| MySocket.java | socket utility class | |

| | | |
|----------------------|---|--|
| MyUtil.java | utility class for frequently used methods | |
| VegaCommEvent.java | VegaCommEvent class | |
| VegaCommWrapper.java | browser-independent class for internal vscp methods | |
| Web2PhoneApplet.java | main Java Applet class which communicates with Browsers and vscp engine (plugin or COM) | |
| Web2PhoneHelper.java | Front-end class for Web2PhoneApplet class | |

| Resource Files | | |
|----------------|--|---|
| File | Description | Comment |
| vscp.rc | vscp dll resource template, contains version information and resource data | |
| VegaComm.rgs | resource file for registering VegaComm COM class to Windows registry | |
| busy.wav | busy sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Dialtone.wav | dial tone sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Ringback.wav | ring sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone0.wav | button 0 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone1.wav | button 1 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |

| | | |
|--------------|-----------------------|--|
| Tone2.wav | button 2 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone3.wav | button 3 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone4.wav | button 4 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone5.wav | button 5 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone6.wav | button 6 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone7.wav | button 7 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone8.wav | button 8 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tone9.wav | button 9 sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tonestar.wav | button star(*) sound | Microsoft PCM 8000 Hz, 8 bit, mono format |
| Tonepnd.wav | button pound(#) sound | Microsoft PCM 8000 Hz, 8 bit, mono format |

| Microsoft COM Wrapper Class(Internet Explorer only) | | |
|---|---------------------------------------|---|
| File | Description | Comment |
| _IvegaCommEvent.java | IvegaCommEvent wrapper for MS Java | generated from vscp.dll by Microsoft Visual J++ COM Wrapper |
| IvegaComm.java | IvegaComm wrapper for MS Java | generated from vscp.dll |
| TagCodecConstants.java | Codec constants definition class | generated from vscp.dll |
| TagStatusConstants.java | Status constants definition class | generated from vscp.dll |

| | | |
|---------------|---------------------------------|-------------------------|
| VegaComm.java | VegaComm wrapper for MS Java | generated from vscp.dll |
|---------------|---------------------------------|-------------------------|

| Microsoft COM(Common Object Model) related files for Internet Explorer | | |
|--|---|--|
| File | Description | Comment |
| vscp.idl | IDL(Interface Definition Language) file which defines the COM interfaces exposed to external Java classes | |
| VscpCP.h | C stub file for COM Connection Point interface | generated from vscp.idl |
| vscp.h | C stub file for COM interface | generated from vscp.idl |
| vscp_i.c | C source file which has declarations for IID(Interface ID) and CLSID(Class ID) | generated from vscp.idl |
| vscp_p.c | C source file which contains proxy stub code for Distributed COM | generated from vscp.idl not using. |

| Netscape Plugin related files for Netscape Communicator | | |
|---|---|-----------------------------------|
| File | Description | Comment |
| Npvsctp.cpp | C language implementation file for basic Netscape Plugin methods, VegaPlugin methods, VegaCommEvent methods | uses COM internally |
| npwin.cpp | Win32 interface for Netscape Plugin | from Netscape PluginSDK source |
| stubs.c | stub files for Netscape LiveConnect(Java to Plugin communication) | |

| | | |
|--------------------------------|---|--------------------------------------|
| | technology | |
| VegaPlugin.java | JRI(Java Raw Interface) declaration file for Netscape Plugin methods | |
| VegaCommEvent.java | JRI(Java Raw Interface) declaration file for status update events | |
| Dialpad_us_VegaCom mEvent.c | Cross-language Interface file for status update events methods which calls external java classes | generated from VegaCommEvent.java |
| Dialpad_us_VegaCom mEvent.h | Header file for status update events methods which calls external java classes | generated from VegaCommEvent.java |
| Dialpad_us_VegaPlug in.c | Cross-language Interface file for Netscape Plugin methods which is called by external java classes | generated from VegaPlugin.java |
| Dialpad_us_VegaPlug in.h | Header file for Netscape Plugin methods which is called by external java classes | generated from VegaPlugin.java |
| SinkObj.h | JRI<->COM communication class(CsinkObj) | |

| C++ Compiler(Microsoft Visual C++ 6.0) related files | | |
|--|---|---------|
| File | Description | Comment |
| vscp.def | declares DLL export functions for use with COM and Netscape Plugin | |

| | | |
|------------|--------------------------------------|---------------|
| vscp.clw | C language class information file | MSVC internal |
| vscp.dsp | Project File information | |
| vscp.dsw | Project Workspace information | |
| stdafx.cpp | files for standard AFX features | MSVC internal |

| C++/Header Files | | |
|------------------|---|------------------------|
| File | Description | Comment |
| VegaComm.cpp | Implementation file for key features(CvegaComm) | main file |
| VegaComm2.cpp | Implementation file for key features(CvegaComm) | |
| VegaComm.h | header file for VegaComm.cpp, VegaComm2.cpp | |
| WaveCtrl.cpp | Manipulates Microphone and Speaker hardware devices(CwaveCtrl) | Recording & Playing |
| WaveCtrl.h | header file for WaveCtrl.cpp | |
| stvscp.cpp | Frames/Deframes VSCP packets | |
| stvscp.h | VSCP header files | |
| vscp.cpp | dll main file | |
| vscp.h | dll main header file | |

| External Dependencies | | |
|-----------------------|---------------------------|---|
| File | Description | Comment |
| stnet.h | network API functions | |
| stnet.dll | network API functions dll | |
| sterror.h | stnet error definition | |
| strtp.h | RTP header file | |
| strtp.dll | RTP DLL | Supports RTP communication and voice |

| | | |
|----------|------------------------------------|------------------------------|
| | | encoding/decoding functions. |
| stg711.h | G.711, G.723 codec DLL header file | |
| tsd2.dll | G.711, G.723 codec DLL | |

Web Server Programs

The "VEGA Server Source Files" are executed by the web server.

| VEGA Server Source Files | | |
|--------------------------|---|---------|
| File | Description | Comment |
| Child.c | Child process main routine and thread routine which handles each call | |
| h323stub.c | H.323 stack calling routines for VEGA server | |
| Sendvscp.c | VSCP packets sending routines | |
| Utils.c | Miscellaneous routines | |
| Vserver.c | Main routine which creates child processes and routes incoming calls to child processes | |
| stdb.c | Performs user authentication by looking up the DB | |
| Stdebug.c | Debugging/Logging facility | |

H.323 Programs

The programs of the "H.323 Stack Packages" are executed by web server 20 and support any H.323 level communications between the web server and the ITSP gateway.

- 5 The programs of the H.323 Stack Packages are used to support an H.323 protocol based communication.

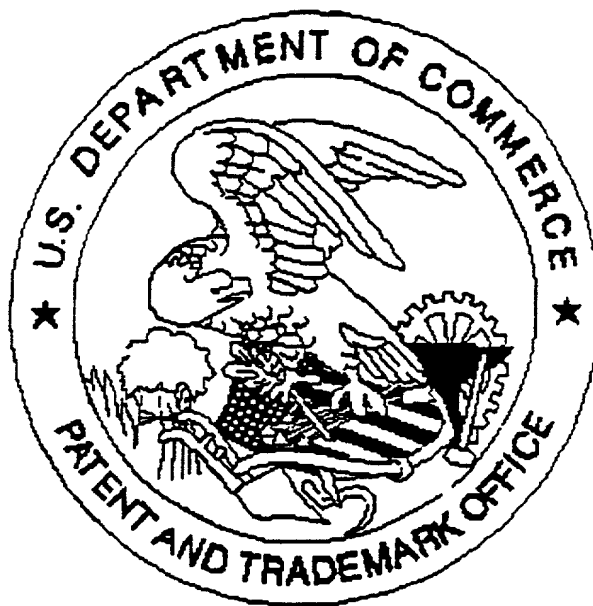
| H.323 Stack Packages | | |
|----------------------|--|---------|
| Package | Description | Comment |
| Stasn | ASN.1 facilities using OSS ASN.1 package | |
| sth245 | H.245 abstraction layer (Session management) | |
| sth323m | H.323 Multi-session (Toplevel API) | |
| Stnet | TCP/IP abstraction layer | |
| stq931 | Q.931 and H.225.0 abstraction layer (Call signaling) | |
| Stras | RAS abstraction layer (Registration, Admission and Status) | |
| Strtp | RTP abstraction layer (Real-Time Protocol) | |
| Stwin32 | Win32 functions ported on Solaris 2.x | |

APPENDIX B

5 The computer program listing Appendix B is attached hereto.

Exhibit B is attached hereto.

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Drawings